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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,567	02/05/2004	Anagha Raipurkar	AWK 03-055	5487
27201	7590	10/19/2006	EXAMINER SYED, FARHAN M	
UNISYS CORPORATION 25725 JERONIMO ROAD, MS400 MISSION VIEJO, CA 92691			ART UNIT 2165	
			PAPER NUMBER	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/772,567	Applicant(s) RAIPURKAR ET AL.	
	Examiner Farhan M. Syed	Art Unit 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 and 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20040205</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-18 are pending.

Election/Restrictions

2. Claims 1-4 and 14-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 28 July 2006.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 05 February 2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 5, item 23; Figure 6, item 23. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the

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immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. The claims are objected to because they include reference characters which are not enclosed within parentheses (i.e. claims 8 and 9).

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 5 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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8. Regarding claim 5, the word "means" is preceded by the word(s) "data storage, tape storage, and recovery" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

9. Regarding claim 10, the word "means" is preceded by the word(s) "System Recover program and DUMP DIR Library" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 5-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tam (U.S. Patent 6,411,969).

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As per claim 5, Tam teaches a system for reducing recovery time in a server-database network comprising: (a) data storage means for providing disk means for holding database files available or read-write access by a server means (i.e. "The Data Management System structures are the building blocks of the Data Management System database. Here, the "data set" has the purpose of storing data pertaining to a data category in a collection of records.")(Column 3, lines 33-37); (b) means (DMUTILITY) to initiate and for operating with said disk means to create special sets of backup dump files on a tape storage means (i.e. "To "back up" the database, means to use the data management system DMUTILITY program to make a copy of all or part of the database. This backup will include a check of the physical integrity of all the database's structures being backed up.")(Column 6, lines 1-5); (c) said tape storage means for holding said special sets of backup dump files (i.e. "This involves a tape storage technology developed by Digital Equipment Corporation to offer high speed storage for digital asset protection.")(Column 9, lines 28-30); (d) means (DumpDir Library) for creating a Main Directory in a correct sequential order and which has a log of the special sets of backup dump files from said tape means (i.e. "DMDUMPDIR: A program that retrieves and modifies directory information for database dumps. When this program is enabled, directory entries are created automatically when a new database dump is created, or existing database dump is copied, or existing database dump is duplicated.")(Column 9, lines 44-49); (e) recovery means for placing said special sets of backup dump files into said disk means to establish an updated and operable database (i.e. "There are several ways to back-up data for diagnostic and recovery purposes." "Another way is (ii) designated logical level back-up. This refers to the data as seen by the user application programs in files or in database tables.")(Column 1, lines 31-32; lines 35-37).

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As per claim 6, Tam teaches a system wherein said means (d) (DumpDir Library) additionally creates a Disk Directory which provides detailed disk sub directories of said dump files for each dump logged in said Main Directory (i.e. "DMDUMPDIR: A program that retrieves and modifies directory information for database dumps. When this program is enabled, directory entries are created automatically when a new database dump is created, or existing database dump is copied, or existing database dump is duplicated.")(Column 9, lines 44-49).

As per claim 7, Tam teaches a system wherein said recover means utilizes said sub-directories for restoring updated data files in said disk means (i.e. "Thus the data management system software can use an audit trail to recover the database from an unusable state, provide restart information to user programs, reconstruct portions of the database that had been lost because of hardware errors, back out aborted transactions and roll back the entire database to a user specified point or rebuild the entire database to a user-specified point.")(Column 5, lines 25-31).

As per claim 8, Tam teaches a system wherein said means (b) to initiate and create special sets of backup dump files includes (b1) creating a FULL dump file D1 (i.e. "For incremental dump, all data blocks which have changed since the last full, incremental or accumulated dump, are backed-up. For accumulated dump, all data blocks, which have changed since the last full dump, are included in the dump.")(Column 14, lines 9-13); (b2) creating a set of ACCUMULATED dump files (i.e. "Incremental and Accumulated back-ups copy only the files that were added to changed since the last lower level dump were backed-up.")(Column 14, lines 14-18); (b3) creating a set of INCREMENTAL dump files (i.e. "Incremental and Accumulated back-ups copy only the files that were added to changed since the last lower level dump were backed-up.")(Column 14, lines 14-18).

As per claim 9, Tam teaches a system wherein said disk sub-directories of each dump logged in said Main Directory includes (i) a Full Dump 24 (DID) (i.e. "For incremental dump, all data blocks which have changed since the last full, incremental or accumulated dump, are backed-up. For accumulated dump, all data blocks, which have changed since the last full dump, are included in the dump.")(Column 14, lines 9-13); (ii) ACCUMULATED dumps A1D and A2D (i.e. "Incremental and Accumulated back-ups copy only the files that were added to changed since the last lower level dump were backed-up.")(Column 14, lines 14-18); (iii) INCREMENTAL dumps I1D and I2D (i.e. "Incremental and Accumulated back-ups copy only the files that were added to changed since the last lower level dump were backed-up.")(Column 14, lines 14-18).

As per claim 10, Tam teaches a system wherein said recovery means (e) includes: (e1) SYSTEM RECOVERY program means including (i.e. "In the operation of computer systems and networks, the computer data is often "backed-up", that is to say, it is copied to a storage medium other than the central computer's storage disk in order to permit the recovery of the data as the data existed at some point in time. This is done for purposes of diagnosis in the event of system failure or inadvertent loss of data.")(Column 1, lines 20-26); (e1a) said DUMP DIR Library means for accessing said sets of dump files from said Main Directory and said Disk Directories for conveyance to said recovery means (i.e. "DMDUMPDIR: A program that retrieves and modifies directory information for database dumps. When this program is enabled, directory entries are created automatically when a new database dump is created, or existing database dump is copied, or existing database dump is duplicated.")(Column 9, lines 44-49); (e1b) said means (DMUTILITY) for conveying said sets of dump files from said Disk Directories to said recovery means (i.e. "To "back up" the database, means to use the data management system DMUTILITY program to

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make a copy of all or part of the database. This backup will include a check of the physical integrity of all the database's structures being backed up.")(Column 6, lines 1-5); (e1c) means for transporting said dump files to said recovery disk to provide an update database (i.e. "Database back-ups can be accomplished for "on-line" and "off-line" bases. The on-line back-up will allow users to update data in the database, whereas the off-line back-up disallows all updates to the database. The back-ups can be done to either tapes or disks or any combination of both types of such media.")(Column 1, lines 62-66).

As per claim 11, Tam teaches a system wherein said dumps (i), (ii), and (iii) are placed in the correct sequential order so that the said recovery means will automatically restore said database in the correct sequential order onto disk means (i.e. "Then, the sequence proceeds to step (C) which invokes the DMUTILITY program which will parse the newly-provided syntax in order to scan for a keyword designated as the "EXCLUDE" keyword, thus, to build a DUMPLIST TO reflect the specific disjoint data set and all of its sub-level structures which are to be excluded from the DUMP.")(Column 14, lines 36-40).

As per claim 12, Tam teaches a system wherein said correct sequential order operates such that most-recently created dump file is the first to be restored, then sequentially the next more recently dump file and so on until the last created dump file (earliest in time) has been restored (i.e. "A place in a program where the program is to be stopped so that its current state can be written to disk. After the state of the program has been recorded, program execution resumes where it left off. If the system halts unexpectedly before the program finishes, the program can be restarted at its most recent checkpoint instead of at the beginning.")(Column 8, lines 40-46).

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As per claim 13, Tam teaches a system wherein said correct sequential order of any dump recovery operates by accessing the sequence from the last item to the first item in the dump (i.e. "A complete restoration of a damaged file system will then require the last full dump followed by the incremental and accumulated dump(s).")(Column 14, lines 18-23).


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhan M. Syed whose telephone number is 571-272-7191. The examiner can normally be reached on 8:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FMS


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